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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,206	03/25/2005	Teruo Aoyama	266057US0PCT	8829

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
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EXAMINER	
BERMAN, SUSAN W	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
03/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/529,206	AOYAMA ET AL.	
	Examiner	Art Unit	
	/Susan W. Berman/	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-18,20,21,23,24 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-18,20,21,23,24 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Terminal Disclaimer

The application/patent being disclaimed has been improperly identified since the number (10/529,206) used to identify the application number being disclaimed is incorrect. The correct number is 10/820,878.

Response to Amendment

The objection to the disclosure is withdrawn since the data in Table 1 is corrected by amendment filed 01-08-2008.

The rejection of claims 10-27 under 35 U.S.C. 112, second paragraph, is withdrawn in response to the claim amendments filed 01-08-2008.

New grounds of rejection are set forth below in response to the amended claims.

Response to Arguments

The rejection of claims 10-16 and 21-27 under 35 U.S.C. 102(e) as being anticipated by or alternatively under 35 U.S.C. 103(a) as being obvious over Ding et al (7,011,872, filed August 24, 2001) is withdrawn in response to the amended claims. The claims as amended require an irradiation dose of from 5 to 200 Mrad.

The rejection of claims 17-20 under 35 U.S.C. 103(a) as being unpatentable over Ding et al (7,011,872, filed August 24, 2001) in view of Doheny, Jr. (5,063,005) is withdrawn in response to applicant's arguments that the references are non-analogous art.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 20 and 23 now depend from canceled claims so it is not clear what other limitations are intended to be included in the claimed subject matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-16, 20, 21, 23, 24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by or, alternatively, under 35 U.S.C. 103(a) as being unpatentable over EP 0 825 227. EP '227 discloses an irradiated polymer blend comprising 60% to 5% by weight syndiotactic 1,2- polybutadiene and 40% to 95% polyisoprene for producing a shaped article having high tensile strength and modulus of elasticity, low permanent set and satisfactory dimensional stability. The syndiotactic 1,2-polybutadiene has a high crystallinity as shown by the melting temperature of 110^0C or more. EP '227 teaches exposure to electron beam radiation carried out at a dose of 50 Mrad or less to crosslink the polymers (page 3, lines 37-40).

EP '227 discloses irradiated molded articles obtained by electron beam irradiation of compositions comprising 60% by weight syndiotactic 1,2-polybutadiene and 40% polyisoprene which fall within the instantly claimed irradiated molded articles. See Example 3 in Table 2.

Tensile stress before irradiation is shown in Table 2 and tensile stress after irradiation is shown in Table 3. The properties set forth in instant claims 10, 11,12,15,16, 20, 23, 24 and 26 are considered to be properties inherent to the irradiated articles taught by EP '227 in the absence of evidence to the contrary. EP '227 discloses irradiated articles obtained by irradiating polymer blends within the instantly claimed recitation with electron beam irradiation within the instantly claimed range, therefor the properties of the products obtained would be expected to be within the limitations recited in the instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10-16, 21, 23, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 825 227. EP '227 discloses an irradiated polymer blend comprising 60% to 5% by weight syndiotactic 1,2- polybutadiene and 40% to 95% polyisoprene for producing a shaped article having high tensile strength and modulus of elasticity, low permanent set and satisfactory dimensional stability. The syndiotactic 1,2-polybutadiene has a high crystallinity as shown by the melting temperature of 110^0C or more. EP '227 teaches exposure to electron beam radiation carried out at a dose of 50 Mrad or less to crosslink the polymers (page 3, lines 37-40). EP '227 does not mention the electron beam acceleration voltage used. EP '227 teaches that, if

the content of polyisoprene is too small and the content of polybutadiene is too large, the compositions may exhibit an unsatisfactory rubber elasticity. EP '227 also teaches that, if the content of polyisoprene is too large and the content of polybutadiene is too small the compositions may exhibit an insufficient reinforcing performance. See page 3, lines 30-36.

It would have been obvious to one skilled in the art at the time of the invention to increase the amount of syndiotactic 1,2-polybutadiene and decrease the amount of polyisoprene in the compositions disclosed by EP '227 in order to modify the properties of the irradiated products. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining the changes in rubber elasticity and reinforcing performance of the irradiated blend taught by EP '227.

Claims 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 825 227 in view of Doheny, Jr. (5,063,005). The disclosure of EP '227 is discussed herein above. Doheny, Jr. teaches that needed radiation can be calculated by a person skilled in the art considered dosage need to effect crosslinking and kilovolts required to provide a penetrating polyential and current (column 10, line 44, to column 11, line 2). Doheny, Jr further teaches obtaining a desired modulus by electron beam irradiation of polyolefins.

It would have been obvious to one skilled in the art at the time of the invention to determine the irradiation conditions, such as dosage and kilovolts, required to obtain a desired property or effect in the process disclosed by EP '227, as taught by Doheny, Jr. EP '227 and Doheny, Jr. are considered to be analogous art because each reference teaches a process for irradiation of polyolefins. EP '227 teaches exposing the disclosed polymer blends to electron

beam radiation to cause crosslinking and provide the properties desired. Doheny, Jr. teaches, in the analogous method for electron beam irradiation of polyolefins, that it is known in the art to determine the required dosage and energy to obtain a desired effect, such as desired modulus. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining the desired crosslinking effects and resulting properties in the polymer blends taught by EP '227, as taught by Doheny, Jr..

Double Patenting

Claims 10-18, 20, 21, 23, 24 and 26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 10/820878. Although the conflicting claims are not identical, they are not patentably distinct from each other because the medical member as defined in claims 1, 5, 9, 12, 15 and 18, for example, encompasses the article obtained by electron beam irradiation of syndiotactic 1,2-polybutadiene and having the properties set forth in the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
3/22/2008

/Susan W Berman/
Primary Examiner
Art Unit 1796